



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,340	11/19/2001	Henry E. Agbaje	MTC6802 (39-21 (53156A))	8785
321	7590	06/15/2005	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			CLARDY, S	
			ART UNIT	PAPER NUMBER
			1617	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/988,340	<b>Applicant(s)</b> AGBAJE ET AL.	
	<b>Examiner</b> S. Mark Clardy	<b>Art Unit</b> 1617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-8,10,12-40,42-47,49 and 51-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-8,10,12-40,42-47,49 and 51-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

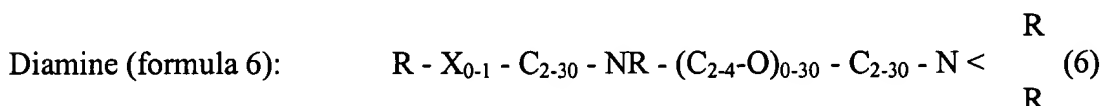
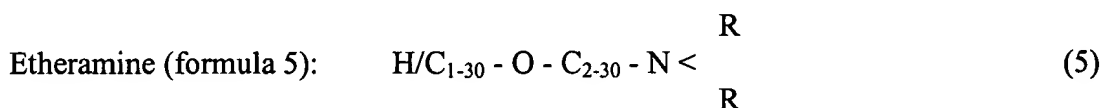
- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/4/04</u> | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1617

Claims 3-8, 10, 12-40, 42-47, 49, and 51-55 are pending in this application for which a Request for Continued Examination (RCE) has been filed; this application was a continuation-in-part of SN 09/926,521, which was filed under 35 USC 371 as the national stage application of PCT/US01/16550, filed May 21, 2001, which claims the benefit under 35 USC 119(e) of US Provisional Applications No. 60/206,628 (May 24, 2000), 60/205,524 (May 19, 2000), 60/273,234 (March 2, 2001), and 60/274,368 (March 8, 2001).

In this RCE, applicants have elected the invention of the pesticidal compositions/methods (i.e., original Groups II-IV), and the following species.

Glyphosate



wherein: each R group above may be -H, -C<sub>1-30</sub>, or -(C<sub>2-4</sub>-O)<sub>1-50</sub> - H/C<sub>1-4</sub>; and

X is -O-, -N(C<sub>2-4</sub>)-, -CO-, -COO-, -OCO-, -N(H/C)-CO-, -CONR-, -S-, -SO-, -SO<sub>2</sub>-.

All claims have been examined, but only insofar as they read on the elected species.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1617

Claims 3-8, 10, 12-40, 42-47, 49, and 51-55 are again rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Stridde et al (US 6,420,311), Griffiths et al (US 6,248,695), Wright et al (US 5,750,468), and Forbes et al (US 5,668,085).

Stridde et al and Griffiths et al both disclose glyphosate compositions comprising applicants' diamine surfactants of formula 6.

Stridde et al, again, teach the utility of alkoxylated polyether diamines wherein the amino groups are separated by a polyether chain. The surfactants are useful for enhancing glyphosate toxicity (columns 1-4).

Griffiths et al, again, teach the utility of formulating glyphosate with polyalkoxylated alkylenediamines, i.e., wherein the amino groups are separated by a C<sub>1-6</sub> alkylene chain (columns 2-3). These surfactants are less hazardous than the more typically used ethoxylated tallowamine surfactants (col 1, lines 43-47). The compositions may further comprise additional surfactant adjuvants with low aquatic toxicity which do not reduce herbicidal efficacy (col 6, lines 39-43). Additionally, alkyl glycoside and alkylpolyglycoside surfactants are disclosed as being useful in combination with the glyphosate + diamine surfactant combination (col 5).

Wright et al, again, teach the utility of polyalkoxylated etheramine surfactants (applicants' surfactants of formula 5) in making glyphosate formulations. The surfactants may be in the form of amines, amine oxides, or quaternary ammonium compounds (columns 1-8). Additional surfactants may be added such as alcohol ethoxylates, alkyl esters of sucrose or sorbitan, or an alkyl polyglucoside (col 8, line 35+), also as taught in Griffiths et al, above.

Forbes et al, again, teach the utility of formulating glyphosate with alkoxylated alkylamine surfactants (columns 2-3), optionally in combination with additional conventional components and surfactants (columns 7-8). Applicants point out that the amine surfactants of

Art Unit: 1617

Forbes et al encompass neither the amine of formula 5, nor the diamine of formula 6. Forbes et al, however, does disclose that additional variations of amine surfactants were known to be combinable with glyphosate for enhanced herbicidal activity.

Each of these references teach that glyphosate may be used in its various conventional salt or ester forms.

One of ordinary skill in the art would be motivated to combine the teachings of these patents because they disclose the activity enhancing effects of adding amine surfactants to glyphosate compositions. The ordinary artisan would have been motivated to combine multiple surfactants as taught in the references in order to take advantage of the characteristics provided by the disclosed surfactants.

Again, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined etheramine and diamine surfactants in glyphosate compositions because the cited references teach that amine surfactants with a wide variety of structures produce enhanced results for glyphosate compositions. Griffiths et al and Wright et al specifically disclose the combination of glyphosate with applicants' surfactants of formula 6, and formula 5, respectively, and each reference specifically discloses that yet another surfactant, an alkyl polyglucoside, provides further benefits for each of these combinations. One of ordinary skill in the art would surmise that if the combinations of glyphosate + amine surfactant (6) + alkylpolyglucoside, and glyphosate + diamine surfactant (5) + alkylpolyglucoside were both beneficial combinations, then the amine and diamine surfactants would be useful in combination as well.

Again, determination of specific ratios of components is within the skill level of the ordinary artisan, as is the selection of the specific form of glyphosate (ester, IPA salt, K salt,

Art Unit: 1617

etc.); absent evidence of criticality, the selection of these ratios and components are seen as obvious.

Applicants point to conclusory statements in the examples as evidence of unexpected results; however, it cannot be determined exactly which of the many examples in the tables pertain to the elected species. It appears that C1 and C2 correspond to formulas 5 and 6, respectively, but there is no apparent data wherein these glyphosate compositions comprising these components are subject to comparative testing alone and together.

No claim is allowed.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Mark Clardy  
Primary Examiner  
Art Unit 1617

June 10, 2005